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UNITED STATES DEPARTMENT OF AGRICULTURE
AGRICULTURAL RESEARCH ADMINISTRATION
BUREAU OF ENTOMOLOGY AND PLANT QUARANTINE
WASHINGTON 25, D. C.

In Cooperation with State, Federal and other Agencies

COTTON INSECT CONDITIONS FOR WEEK ENDING AUGUST 17, 1946
(Twelfth Cotton Insect Survey Report for 1946)

Conditions during the week have been generally favorable for cotton. In southern Texas much of the crop has been picked, and picking is under way as far north as Waco, Texas, and Columbia, South Carolina. Where there are green bolls to protect from weevils, much cotton can still be saved by dusting with calcium arsenate throughout August and early September. The State Plant Board of Mississippi reports that poisoning during August has paid well. Fields near Tupelo in Lee County in northeastern Mississippi that had infestations ranging from 50 to 60 percent ten days ago, after poisoning were reduced to 7 to 16 percent punctured squares.

The cotton leafworm moths are on the move. They have reached nearly all parts of Texas, and occur over large areas in Oklahoma, Arkansas, Louisiana and northwestern Mississippi. They have been reported from Missouri, Alabama, Arizona and New Mexico. They may have reached other States. Young cotton must be protected or the leafworms will cause serious damage.

The bollworm and cotton aphid are causing serious losses in Texas and, to a less extent, in other States.

The supplies of calcium arsenate have been barely sufficient in many localities to meet the needs of the cotton growers. The situation is tight in parts of Georgia, Alabama, Louisiana and Arkansas. At present there are no reports of failure to get some supplies, nor are there reports of pressing needs where more material is now required.

Large quantities of arsenical insecticides are now being used for cotton leafworm control in many counties of central, northern and western Texas, in northern Louisiana, in Arkansas and Oklahoma, and will probably be needed in Missouri and in the northwestern section of Mississippi during the next week.

The nicotine supply in all the Cotton States has been inadequate throughout the summer. This accounts for serious damage to the cotton crop by aphids. Boll weevils were not checked by calcium arsenate on many farms because the growers would not dust with calcium arsenate without having nicotine available to control the aphids. If adequate supplies of nicotine had been available, millions of additional pounds of calcium arsenate would have been used during July and August for boll weevil control.

DDT mixtures for the control of the bollworm and the cotton flea hopper and other sucking bugs have, in general, been adequate, but shortages have been reported at times in Arizona and parts of Texas.

Every effort should be made to get cotton picked promptly to prevent staining of lint by insects and weather. Where the cotton is harvested early, growers can do much to reduce the loss from boll weevils in 1947 by cutting the cotton stalks before frost--the sooner, the better. Early fall destruction of the cotton stalks has long been recognized as a means of reducing the numbers of boll weevils surviving the winter, but this is of little or no value if it is not done before the cotton is killed by frost.

BOLL WEEVIL

TEXAS: On account of continued hot, dry weather cotton has matured rapidly and has passed the stage for making square infestation counts in most areas. The average weevil infestation in 148 fields in 33 northern and western counties was 31%. In 11% of the fields no weevils were found; in 14% of the fields the infestation was less than 10%; in 29% of the fields it was from 10 to 25%; in 26% of the fields it was from 25 to 50%; and in 20% of the fields more than 50% of the squares were punctured.

OKLAHOMA: The continued dry, hot weather has reduced weevil infestation in many fields, but the infestation remains high in many of them. The average infestation in 135 fields in 15 counties was 27%, as compared to 32% the previous week. No weevils were found in 4% of the fields. In 32% of the fields the infestation was less than 10%; in 28% of the fields it was from 10 to 25%; in 19% of the fields it was from 25 to 50%; and in 17% of the fields more than 50% of the squares were punctured.

LOUISIANA: Many growers have completed their boll weevil poisoning programs. Most cotton in the State has passed the stage for making square infestation records.

ARKANSAS: The average infestation in 127 fields in 16 counties was 48%. In 6% of the fields no boll weevils were found. In 1% of the fields the infestation was less than 10%; in 16% of the fields it was from 10 to 25%; in 35% of the fields it was from 25 to 50%; and in 42% of the fields more than 50% of the squares were punctured. The highest average boll weevil infestations were found in Drew, Ashley, Ouachita, Chicot, Hempstead, Miller, Little River, Nevada, Desha, and Howard Counties.

MISSISSIPPI: Weather conditions were more favorable for cotton than in any recent week and indications of climatic control of the weevil were noted for the first time this season. However, weevil infestation continued to increase generally.

The average infestation in 138 fields in 13 Delta counties was 56% and in 127 infested fields was 60%. No infestation was found in 11 of the fields examined. In 13 fields the infestation was less than 10%; in 20 fields it was from 10 to 25%; in 18 fields it was from 25 to 50%; and in 76 fields more than 50% of the squares were punctured. A large planting company in Bolivar County reported weevils in all of 188 fields examined, with an average infestation of 29% as compared to 23% the previous week. This company reported that no further infestation records would be made since weevil populations were present in sufficient numbers to require poisoning in all fields. The State Plant Board reported low infestations in some fields along the Tennessee line but infestations as high as 44% were found in Alcorn, 52% in Tunica, 100% in Panola, and 56% in Tate Counties indicated large numbers of weevils in the northern part of the State.

GEORGIA: Hot, dry weather prevailed generally with some local rains in the southern part of the State. Cotton is maturing rapidly as far north as Tift County. Weevil migration is well established in all areas and heavy infestations were reported in Floyd, Bartow, Paulding, and Gwinnett Counties north of Atlanta, and in counties along the Savannah River as far north as Stephens. The average infestation in 100 fields in 30 northeast and northwest counties was 35%. Infestation was found in all fields examined. In 9 fields the infestation was less than 10%; in 20 fields it was from 10 to 20%; in 18 fields it was from 20 to 30%; in 10 fields it was from 30 to 40%; in 10 fields it was from 40 to 50%, and in 35 fields more than 50% of the squares were punctured.

SOUTH CAROLINA: Weather conditions were more favorable for cotton throughout the State than any recent week, and cotton is beginning to open in the Coastal Plains Area. Boll weevils continue to be very abundant in all areas and much damage is being caused to the bolls. The average weevil infestation in 124 fields in 19 Piedmont and Upper Coastal Plains Counties was 82% punctured squares, ranging from 70% in York and Pickens Counties to 97% in Richland and Abbeville Counties. In 9 of the fields the infestation was from 25 to 50%, and in 115 fields more than 50% of the squares were punctured.

NORTH CAROLINA: Weevil conditions continue critical in all cotton areas, but more damage has occurred in the Lower Coastal Plains Counties than any other part of the State. The crop was materially reduced as a result of weevil injury to squares and now much injury is being caused to bolls. The average infestation in 101 fields in 15 southern and eastern counties was 76%, ranging from 26% in Hertford County to 100% punctured squares in 14 fields examined in Hoke and Scotland Counties. In 2 of the fields the infestation was less than 10%; in 3 fields it was from 10 to 25%; in 20 fields it was from 25 to 50%; and in 76 fields more than 50% of the squares were punctured.

VIRGINIA: Ray M. Ritchie, Jr., Assistant County Agent, Suffolk, Nansemond County, reported on August 10 the examination of 4 cotton fields. Two were free of weevils and the others had 2% and 4% punctured squares. On August 17, F. C. Moore, County Agent, reported three additional fields examined. One was free of weevils and the others had 2% and 3% punctured squares.

COTTON LEAFWORM

TEXAS: The cotton leafworm is now present in all cotton growing areas of the State. Much dusting is being done in the central part of the State for the control of second generation worms.

OKLAHOMA: Leafworms are reported from practically every county in the State but little ragging of the plants has occurred. In Stephens County serious ragging was reported in some fields and poisoning is under way for leafworm control.

LOUISIANA: Eggs and numerous small leafworms are present in most areas, especially in the northern part of the State. Cotton is maturing rapidly in many fields and poisoning for leafworms is being discontinued in the older cotton. There are many fields of young cotton in the northern part of the State that will be poisoned.

ARKANSAS: Leafworms continue to be serious in the southern part of the State and much poisoning is being done for their control.

MISSISSIPPI: The second generation of leafworms has appeared in the northwestern part of the State and moths are numerous. Little poisoning has been done thus far but many growers are prepared to poison if the second generation of worms develops in damaging numbers.

MISSOURI: George D. Jones, Extension Entomologist, wired on August 15 "Leafworms appeared Poplar Bluff (Butler County) on August 7. Small amount calcium arsenate on hand." On August 20 he wired that small cotton leafworms had been reported in Scott County but that no serious damage has yet occurred. The farmers are watching the situation and getting ready to use insecticides.

BOLLWORM

TEXAS: Bollworm damage continued serious in late-planted or rank-growing cotton in many sections of the State.

OKLAHOMA: Bollworms are present in practically all cotton areas in the State and are causing serious damage in many fields. One field in McClain County had 79% of the squares and bolls damaged by this pest.

LOUISIANA: Bollworms continue to inflict moderate to severe injury in many areas and much poisoning has been done for their control especially in the northwestern part of the State.

MISSISSIPPI: Bollworms have been reported in most Delta counties but no serious damage has occurred.

COTTON APHID

LOUISIANA: Aphids are on the increase generally, especially in fields that have been poisoned for boll weevil, bollworm, and leafworm control. Leaf drop has started in many fields. The shortage of nicotine is keenly felt at the present time.

MISSISSIPPI: Aphid populations are increasing, especially in fields that have been poisoned for weevil control. No serious damage has been reported.

ARKANSAS: Many fields in the southeastern part of the State are heavily infested with aphids and damage is apparent in many fields.

TEXAS: Aphids continue to be serious in many areas, but populations are being reduced in some fields by parasites.

INSECTS ON IRRIGATED COTTON IN THE SOUTHWEST

ARIZONA: Hemipterous insect populations continued to build up in a number of fields in the Salt River Valley that had not been previously dusted for their control. Much dusting has been done with good results. Practically all cotton in the Santa Cruz Valley has been dusted for hemipterous insects or bollworms. The demand for dusts has been greater than the supply at times. A shortage of DDT is reported.

NEW MEXICO: Hemipterous insect populations continue low in the Pecos and Mesilla Valleys.

TEXAS: Some dusting for hemipterous insect control is reported in the El Paso Valley. Most of the fields requiring treatment are adjacent to seed alfalfa fields.

MISCELLANEOUS INSECTS

Red Spider: T. L. Bissell, Entomologist, Experiment, Georgia, wrote on August 13 that "the red spider has been reported this year from Rockdale, Jasper, Henry, and Haralson Counties."

In western Texas the red spider was reported as causing considerable damage, especially in Dawson County, where more than 200,000 pounds of dusting sulfur have recently been purchased by farmers for its control.

Lygus: Tarnished plant bugs are causing serious damage in Floyd County, Texas.

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August 21, 1946

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